No.



8800119

THE UNITED STATES OF AMERICA

plant Genetics, Inc.

Withereas, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE; IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT TARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF LIGHTERN OF VEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT LETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

ALFALFA

'York'

In Testimony Winexect, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D. C. this 28th day of February in the year of our Lord one thousand nine hundred and eighty-nine.

Clay of Agriculture

dun

Kernell Heron Commissioner Plant Veniste Partection Office

Plant Variety Protection Offics Agricultural Marketing Servics

U.S. DEPARTMENT	OF AGRICULT	URE				o: OMB NO, 0581-0059 red in order to determin			
AGRICULTURAL M	AGRICULTURAL MARKETING SERVICE								
				if a l	plant variety pr	otection certificate is to 2421). Information i			
APPLICATION FOR PLANT VARI	ETY PROTE s on reverse	ECTION (CERTIFICATE	held	confidential u	intil certificate is issue			
1. NAME OF APPLICANT(S)	s on reverse)	2 TEMP	ORARY DESIGNAT		ARIETY NAM				
PLANT GENETICS, INC.		83B							
					YORK				
4. ADDRESS (Street and No. or R.F.D. No., City, Sta	te, and Zip Code	J 5. PHON	E (Include area code)		FOR OFFIC	IAL USE ONLY			
1930 5th Street						0.110			
Davis, CA 95616	Davis, CA 95616 (916) 75.					0119			
6. GENUS AND SPECIES NAME	GENUS AND SPECIES NAME 7. FAMILY NAM				DATE	7,980			
MEDICACO CATILLA	LEGINA	100745		FILING	TIME	-7, <u>1988</u>			
MEDICAGO SATIVA	LEGUMIN	IOSEAE.		u.	11:00 MAM. []F				
8. KIND NAME	9	. DATE OF	DETERMINATION		AMOUNT F	OR FILING			
				ÉD	S / 80-0				
ALFALFA		FOUNDAT	CION FALL 85	RECEIVED	april	7,1988			
10. IF THE APPLICANT NAMED IS NOT A "PERSO	N," GIVE FORM	OF ORGA	NIZATION (Corpora		117	OR CERTIFICATE			
partnership, association, etc.)	•			FEES	\$ 200				
CORPORATION					Jan.	9,1989			
11. IF INCORPORATED, GIVE STATE OF INCORP	ORATION			12.	DATE OF INC	ORPORATION			
CALIFORNIA					ANUARY 1				
13. NAME AND ADDRESS OF APPLICANT REPREMENT. James C. Weseman	SENTATIVE(S),	IF ANY, TO	SERVE IN THIS A	PPLICATIO	ON AND RECE	IVE ALL PAPERS			
LIMBACH, LIMBACH, & SUTTON									
2001 Ferry Building									
San Francisco, CA 94111			PHONE (Inclu	de area coo	^{fe)} : (415)	433-4150			
14. CHECK APPROPRIATE BOX FOR EACH ATTA			- 6.1 - 71 - 71 - 71	. 75					
a. (C) Exhibit A, Origin and Breeding History of b. (C) Exhibit B, Novelty Statement.	the Variety (Se	e Section 5	2 of the Plant Variet	ty Protecti	on Act.)				
 b. L. Exhibit B, Novelty Statement. c. Description of Variety 	TV (Request form	n from Plan	t Variety Protection	Office.					
d. Exhibit D, Additional Description of Vari				-33 -7					
e. Exhibit E, Statement of the Basis of App									
15. DOES THE APPLICANT(S) SPECIFY THAT SEE SEED? (See Section 83(a) of the Plant Variety Processing 15 of the Plant Varie	D OF THIS VAF otection Act.)	RIETY BE S	OLD BY VARIETY !	NAME ON	LY AS A CLAS	SS OF CERTIFIED			
16. DOES THE APPLICANT(S) SPECIFY THAT THE			IF "YES" TO ITEM						
LIMITED AS TO NUMBER OF GENERATIONS?	•		BEYOND BREEDE!	R SEED?		-			
Yes No	SOR PROTECT	L	Foundation		Registered	Certified			
18. DID THE APPLICANT(S) PREVIOUSLY FILE	FORFROTEC	TION OF T	ne vancii in ii	ne 0.a.:		Yes (If "Yes," give date			
	•					No.			
19. HAS THE VARIETY BEEN RELEASED, OFFE	RED FOR SALE	ORMAR	KETED IN THE U.S	SOBOTE	ER COUNTR	IES 7			
• '	. A	β. ≤ee	10/12/88 le	Her in	file X	Yes (If "Yes," give nam of countries and dates)			
U.S.A 11/30	/8 \$7	10	121/88		, حبيب	Or Coditities and detest			
	-					No			
20. The applicant(s) declare(s) that a viable sam plenished upon request in accordance with s				ished wit	h the applicat	ion and will be re-			
The undersigned applicant(s) is (are) the own	ner(s) of this se	xually rep	roduced novel plan	nt variety,	, and believe(:	s) that the variety is			
distinct, uniform, and stable as required in S	ection 41, and	is entitled	to protection und	er the pro	visions of Sec	ction 42 of the Plant			
Variety Protection Act. Applicant(s) is (are) informed that false repr	esentation here	in can ieo	nardize protection	and resul	t in penalties				
SIGNATURE OF APPLICANT			pardize protection		DATE				
2011/11/		-		.	de.	1 25 000			
Yutt HUSK					mare	10,1500			
SIGNATURE OF APPLICANT			., , -,,,		DATE	-			
				1	,				

Exhibit 14 A:

York is a moderately dormant, 150-cloned synthetic cultivar. It was developed by mass selecting plants for resistance to anthracnose. Germplsm traces to: Advantage (2), Anchor (3), Answer (6), Armor (15), Atlas (15), G-2815 (26), Gladiator (3), Mercury (15), Pacer (5), Phytor (2), Team (16), Thor (2), Valor (17), Vancor (8), and Vangard (15). Breeder seed (Syn 1) was produced in an isolation cage in 1983 near Woodland, California.

York is uniform and stable through the foundation generation, commensurate with other alfalfa cultivars based on 13 location years of performance data. The certified seed generation has revealed no variants from the previous generations.

Substituted Date: 10/21/88, Ao

Exhibit 14 B:

York is most similar to Edge, Summit, and Trumpetor, but differs in the following pest resistance.

	NPI 455				
Characteristics	or <u>GT-55</u>	York	$Edge^{(a)}$	Summit (a)	Trumpetor (a)
Bacterial Wilt	MR	R	R	R	MR
Vertiullim Wilt	LR	LR	R	R	MR
Fusarium Wilt	HR	R	R	R	f HR
Anthracnose	LR	HR	HR	HR	R
Phytophthora Root	Rot NA	R	R	R	LR
Spotted Alfalfa Ap	hid ^{HR}	LR	R	MR	LR
Pea Aphid	NA	M R	R	R	MR
Stem Nematode	NA	R	Mary Addition		R

(a) 1987 Alfalfa Varieties - Published by the Certified Alfalfa Seed Council.

HR = High Resistance

R = Resistance

MR = Moderate Resistance

LR = Low Resistance

Exhibit 14B (Continued):

	NPI 455	
Characteristics	or <u>GT-55</u>	<u>York</u>
Bacterial Wilt	MR	R
Verticillium Wilt	White state	LR
Fusarium Wilt	HR	R
Anthracnose	MR	HR
Phytophthora Root Rot	R	R
Spotted Alfalfa Aphid	R	LR
Pea Aphid	R	MR
Stem Nematode	MR	R

(b) Agronomy Progress Report, University of California, Davis, Number 206 page 14 (August 1988).

HR = High Resistance

R = Resistance

MR = Moderate Resistance

LR = Low Resistance

-- = No Data

Added 12/5/88, AB From 12/2/88 letter in File

PLANT VARIETY PROTECTION OFFICE BELTSYILLE, MARYLAND 20106

OBJECTIVE DESCRIPTION OF VARIETY

		ALFALF	A (Medicago antive s	meu Gunn et al.J				
NAME OF APPLICANTISI			TEMPORARY	DESIGNATION	VARIETY NAME			
PLANT GENETICS, INC.	•		83B35		YORK			
ADDRESS (Street and No., or R.F.D. N	e., City, State, and	Zep Codel				LY		
1930 5th Street Davis, CA 95616					PYPO NUMBER	00119		
PLEASE READ ALL INSTRUCTIO application variety. Data for quanti titative data. Comparative data show e.g., The Munsell Plant Tissue Color	itative plant char. Ad be determined	acters should be based	on a minimum of 1	00 plants. Include lead	h are characteristic ling zeros when ne	of the commerical g	9 1 for quan-	
3- 5- 7- 3-	(Du Puits) (Flanger) Extremely Winserh	ardy (Norseman)	4 = Semi-Winter 6 = Moderately 8 = Winterhards					
TES	T LOCATION:	AMPA, ID.:	ROCKSPRINGS	PA.				
2. FALL DORMANCY:	F	ALL DORMANCY (DETERMINED FRO	M SPACED PLANTIN	(GS)	* .		
		1		REGROWTH SCORE OF	R AVERAGE HEIGH	ır f		
TESTING INSTITUTION AND LOCATION	DATE OF LAST CUT	DATE REGROWTH	APPLICATION	1	CHECK VARIETIE	s*	LSD 05	
***************************************	LAST COT	SCORED	VARIETY	SARANAC AR	VERNAL	LAHONTAN		
PLANT GENETICS, INC. NAMPA, ID.	9/4/84	9/19/84	3.5	4.3	3.0	6.8	0.8	
UNIV. OF PENN. ROCKSPRINGS, PA.	9/6/85	9/25/85	9.1	9.4			1.9	
* CUF 101, Moapa 69, Mesilla, Lahonsan,						L		
		EASURED IN	INCHES	·		:		
5 Fall Growth Habit (Determin	rect (CUF 101)		nerect (Mesika)	5 = Intermediate (Swanzi			
7 - S	emidecumbent (Ve	rnal) 9 = Dec	umbent (Norseman)	3 - Mesnadate t	38.3.4.7			
I. RECOVERY AFTER FIRST SPRING (1 = Very Feet (i 9 = Very Slow (CUF 1011): t (Saranac)	5 = Intermediate (Rangeri	7 + Slow (Vernal)		
TEST LOCATIO		DATA	<u> </u>					
AREAS OF ADAPTATION IN U.S. (WE	were tected and pro-	ren edeptedi:						
6 Primary Area of Adaptation				2 1 Other	Areas of Adaptation			
					£	the true	Δ	
1 = North Centr. 5 = Maderately t 8 = Other (Speci	- Minterhandy Intern	2 - East Central Journal	3 = Sou 6 = Winterhardy Inte		Southwest 5			
					•	A COMPANY	,	
			:					
FLOWERING DATE (When 10% of plans	ts possess open flev	vers at time of that sprin	g cutj:		era.			
Days Earlier Than	🔟							
Some As	🔲	1 - CUF	101 2	- Mesilla 3	Saranac 4	- Vernel 5 - N	orsemen	
Days Letter Then Y	EST LOCATION:	LAG ON	<u> </u>	· ·			.5	

Substituted_Date: 10/21/88, A6

CORM LS 470-32 (4-88) (Edition of 4-82 may be used)

1 = Very Dark Green		2 = Dark Green (NO DA		3 = Light Green (R	anger)		8800119
	UE (Specify chart used;	NO DA		· · · · · ·			
APPLICATION VARI	IETY:						
VERNAL:TEST LOCATION:				·			
7. CROWN TYPE (Determined fr			•		-		
2 Noncreeping Type	es: 1 = Broad (Ve	ernal)	2 = Intermediate (Sa	ranac) 3	= Narrow (CU	F 101)	
Creeping Types:	4 = Creeping I	Rooted (Rangelar	nder)	5 = Rhizomatous (Rhizoma)		
8. FLOWER COLOR (Determine		ch color class as o	defined by USDA Ag	ricultural Handbook N	lo, 424 (Barne	s 1972), allowing all p	lants in plot to flower):
	et (Subclasses 1.1 to 1.4)			% Blue (Subcla			
2 % Variegated Other	er Than Blue (Subclasses 2.	.1, 2.2, 2.5 to 2.9	"	% Yellow (Sub		.41	
	ı. CANYON GOUN	TY, ID.	TRAC	E Willie (Class			
9. POD SHAPE (Determine frequ			es produced on well o	ross-pollinated raceme			
1 0 0 % Tightly Coiled (One or more coils, center r	nore or less close	d)	% Loosely Coil	ed (One or ma	re cails, center conspi	cuously open)
% Sickle (Less tha	n 1 coil)			TEST LOCATI	on: _CAN	ON COUNTY,	ID.
10. PEST RESISTANCE: Provide				*			
evaluati location Seeds of	on. Describe scoring system is should be presented when f the check varieties and gen Although comparisons wit	m, and any test p never available or rmplasm lines list	rocedure which diffe a a separate documented below can be obt	rs from standard meth it as Exhibit D ained from the USDA	ods proposed l Field Crops La	by Elgin (1982). Tria boratory, Bldg. 001,	whether test is a field or laboratory I data from other test years or Rm. 335, BARC-West, Beltsville, MD ommended by Elgin (1982) may be
A. DISEASE RESISTANCE:	WAR (ETV	SYN. GEN.	PERCENT RESISTANT	NUMBER OF		% resist.	INSTITUTION, YEAR, LOCATION,
DISEASE	VARIETY	TESTED	PLANTS	PLANTS TESTED	AS1	LSD .05	FIELD OR LABORATORY
Anthracnose, Race 1 (Colletatrichum trifolii)	Application	1	71.3	180	NA	9.4	PLANT GENETICS, INC. 1986
·	-Are-(PH) SARANAC	AR (R)	52.4	1095			WOODLAND, CA GREENHOUSE
	Saranac (S)		1.0	974			
	SCORING SYSTEM:	% SE	EEDLING SU	RVIVAL			
Anthracnose, Race 2 (Collectotrichum trifolii)	Application						:
	Saranac AR (R)				•		
NO DATA	Arc (S)					1	
	SCORING SYSTEM:	<u> </u>		,	! · · · · · · · · · · · · · · · · · · ·		
8				ACCUMED	· ·		
Bacterial Wilt (Corynebacterium insidiosum)	Application	1	/ 42.2	ASSUMED 150-225	2.33	0.39	UNIVERSITY OF
	Vernal (R)		42.0	ASSUMED 150-225	2.28		MINNESOTA 1985
	Narragansett (S)		5.2	ASSUMED 150-225	2.60		ROSEMOUNT, MN FIELD
	scoring system: 0-5;	% 0's +	1's = % re	esistance			
Common Leafspot (Pseudopeziza medicaginis)	Application						
	MSA-CW3AN3 (R)		e*	-	-		
NO DATA	Ranger (S)						- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
	SCORING SYSTEM:		*	-		-	6
FORM LS-470-32 (4-85)		A. A.					PAGE 2 OF 5

, DISEASE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	% resist	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Downy Mildew (Peronospora trifoliorum)	Application		1				
Isolate, if known:	Saranac (R)						
NO DATA	- Kanza (S)	<u> </u>					
	SCORING SYSTEM:		· ·		1		<u> </u>
Fusarium Wilt (Fusarium oxysporum (, medicaginis)	Application	2	48.2	ASSUMED 120-180	2.57	0.77	UNIVERSITY OF
	Moapa 69 (R)		81.3	ASSUMED 120-180	2.41		MINNESOTA 1987
	Narraganseri (B) MNGN	- 1(S)	0.9	ASSUMED 120-180	4.90		ROSEMOUNT, MN FIELD
	SCORING SYSTEM:	5; % O's	s + 1's =	% resistanc	e		
Phytophthora Root Rot (Phytophthora megasperma f. medicaginis)	Application-	2	41.5	127	2.70	0.23	PLANT GENETICS, 1986
	Agate (R)		45.7	114	2.59		WOODLAND, CA. GREENHOUSE
	Saranac (S)		5.9	490	3.27		GREENHOUSE
	SCORING SYSTEM: 1-5	5; % 1's	+ 2's =	% resistance	e ;		<u> </u>
Verticillium Wilt (Verticillium a/boatrum)	Application	1	9.7	220	3:68	0.24	PLANT GENETICS,
	Vertus (R)		34.1	120	2.82		1984 NAMPA, ID.
	Saranac (S)		0.0	102	4.27		GREENHOUSE
	SCORING SYSTEM: 1-5	; % 1's	+ 2's = '	% resistance	e		
Other (Specify)	Application	i.			<u> </u>		
	(R)						
	(s)		:				
	SCORING SYSTEM:						
Other (Specify)	Application				•		
	(R)						
	(S)						
s	SCORING SYSTEM:						
VSECT RESISTANCE:		SYN. GEN. TESTED	PERCENT DEFOLIATION:	DEFOLIATION IN PERCENT OF RESISTANT CHECK	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
INSECT				COSTANT CHECK			
Ifalfa Weavil	Application	1		İ	i		
Ifalfa Weavil lypera postica)	Application Arc (R)			100			
Ifalfa Weavil NO DATA	-		-	1			

			PERCENT	NUMBER OF	1, 1	% resist	·1 0000112
INSECT	VARIETY	SYN. GEN. TESTED	SEEDLING SURVIVAL	SEEDLINGS TESTED	ASI	-A6I- LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Blue Alfatta Aphid (Acyrthosiphon kondoi)	Application	1	5.5	172	NA	4.1	PLANT GENETICS, I
	CUF 101 (R)	·	70.0	183			WOOODLAND, CA. GREENHOUSE
	PA-1-ISI MESA	SIRSA(S)	0.1	201			
D Askid	SCORNEG STSTEM:	% SEED	LING SURVI	[VAL			
Pea Aphid (Acyrthosiphon pisum)	Application	1	28.1	156	NA	9.8	PLANT GENETICS, I
	Kanza (A) CUF 1	01 (R)	61.8	152			WOODLAND, CA. GREENHOUSE
-	SCORING SYSTEM:	69 (S)	7.7	173			
Spotted Alfalfa Aphid	SCORING STSTEM:	% SEEDI	LING SURVI	VAL			
(Therioaphis maculata)	Application	2	15.3	214	NA	10.1	PLANT GENETICS, I
Biotype, if known:	Kenze (R) BAKER	(R)	72.0	221			WOODLAND, CA. GREENHOUSE
	Bangerisi CALIV	ERDE (S)	0.5	1230			
	COORING STSTEMI	% SEEDI	LING SURVI	VAL			1
INSECT	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Potato Leafhopper Yellowing (Empoasca fabae)	Application -						
NO DATE	MSA-CW3An3 (R)			·			
NO DATA	Ranger (S)			·			
	SCORING SYSTEM:						
Other (Specify)	Application						
	(R)						
	(S)			·			
	SCORING SYSTEM:			-			
NEMATODE RESISTANCE: NEMATODE	VARIETY	SYN, GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Northern Root Knot (Meloidogyne hapla)	Application						
	Nev. Syn. XX (R)	-					
NO DATA	Lahontan (S)		, .				
	SCORING SYSTEM:	-					

				<u> </u>			2200119
10. C, NEMATODE RESISTANC		SYN. GEN.	PERCENT	NUMBER OF	ASI	ASI	INSTITUTION, YEAR, LOCATION,
, WEIWATO E	VARIETY	TESTED	PLANTS	PLANTS TESTED	ASI	LSD .05	FIELD OR LABORATORY
Southern Root Knot (Meloidogyne incognita)	Application			-			
NO DATA	Моара 69 (R)						
NO DATA	Lahontan (S)				-		
; ·	SCORING SYSTEM:	-					
Stem Nematode (Ditylenchus dipsaci)	Application	2	32.6	142	3.03	0.27	PLANT GENETICS, INC
	Lahontan (R)		55.0	105	2.78		1986 WOODLAND, CA.
	Ranger (S)		4.2	273	3.86		GREENHOUSE
	scoring system: 1-5;	% 1's +	2's = % re	esistance			
Other (Specify)	Application						
	(R)						1
	(s)						
	SCORING SYSTEM:			:	÷		
11. INDICATE THE VARIETY T	HAT MOST CLOSELY F	ESEMBLES THE	APPLICATION VA	RIETY FOR EACH O	THE FOLLO	WING CHARACTER	RS:
CHARACTER		VARIETY		CHARA	CTER		VARIETY
Winterhardiness	SAR	ANAC AR		Plant Color		NO 0	CRITICAL DATA
Recovery After 1st Cut	SAR	ANAC AR		Crown Type		SARA	ANAC AR

REFERENCES

Barnes, D.K. 1972. A System for Visually Classifying Alfalfa Flower Color. U.S. Dep. Agric. Handb. 424. 18 pp. (Note: Greenish cast of plate 6, A and 8 is an artifact of printing, actual colors a blend of yellow and white.)

Combined Disease Resistance

Combined Insect Resistance

EDGE, SUMMIT

TRUMPETOR

Elgin, J.H., Jr., (ed.). 1982. Standard Tests to Characterize Pest Resistance in Alfalfa Cultivars. U.S. Dep. Agric. Tech. Bull. (In Press).

Gunn, C.R., W.H. Skrdla, and H.C. Spencer. 1978. Classification of Medicago sativa L. using legume characters and flower colors. U.S. Dep. Agric. Tech. Bull. 1674. 84 pp.

Munsell Color Co., 1977. Munsell Plant Tissue Color Charts. Munsell Color Co., Inc. Baltimore.

SARANAC AR

NO CRITICAL DATA

NOTE: Any additional descriptive information and supporting documentation may be provided as Exhibit D.

Area of Adaptation

Flowering Date

Exhibit 14 E:

The principal breeder, Ike Kawaguchi, was employed by PLANT GENETICS, INC. All rights to alfalfa varieties developed by the breeder while employed by PLANT GENETICS, INC. are assigned to PLANT GENETICS, INC.